

MANFRED T. REETZ ET AL.  
USSN 09/831,566

REMARKS

Applicants respectfully request reconsideration and allowance of this application in view of the amendments above and the following comments.

At the outset, Applicants acknowledge with appreciation the Examiner's indication that a number of the claims are allowable in substance. For the reasons given below, Applicants believe the remaining claims are allowable as well.

Also, Applicants wish to address the showing required by 37 CFR § 1.116(b) as to why the amendments above are necessary and were not presented earlier. The amendments are responsive to new points made by the Examiner in the final rejection. Since this is the first substantive after-final response, these amendments could not have been presented earlier. In view of the foregoing, Applicants submit that a proper showing has been made, and, therefore, that the Examiner should enter and consider these amendments. An early notice that these amendments have been entered and considered is earnestly solicited.

Amendments have been made to claims 21, 41 and 44. A clean copy of these claims is presented above. A mark-up showing the changes that have been made to these claims using brackets and underlining is attached.

Claims 21-24, 26-30, 32, 33, 35 and 37 were rejected under 35 USC § 102(b) as being anticipated by Moumen et al. ("Moumen"), *Chem. Mater.*, 8:1128-1134 (1996).

MANFRED T. REETZ ET AL.  
USSN 09/831,566

Claim 36 was rejected under 35 USC §103(a) as being obvious over Moumen.

In response to *both* rejections based on Moumen, Applicants reiterate that Moumen teaches the preparation of nanosized cobalt/iron mixed metal oxides, which are stable against undesired agglomeration only if large amounts of *an organic solvent*, especially 50% ethylene glycol, are used. In contrast, one of the main objects of the present invention is to avoid the use of such organic solvents, and, indeed, the inventive colloids are stable in 100% water. Clearly, the inventive colloids are fundamentally different from Moumen's colloids, having different properties, and, consequently, there is no anticipation. Further, Moumen actually leads persons skilled in the art away from rather than towards the inventive colloids, and, therefore, there is no obviousness either.

The Examiner points out that Applicants' product claims don't require any particular amount of water, or even water at all. This is true, but Applicants' rejected claims do now require that the metal oxide colloids are "*100% water-soluble*." As Moumen's colloids could only be stabilized if large amounts of an organic solvent, especially 50% ethylene glycol, are used, clearly Moumen's colloids do not meet the instantly claimed limitation of "*100% water-soluble*." Consequently, there is no anticipation. Further, since Moumen does not suggest how "*100% water-solubility*" can be achieved, Moumen also cannot have rendered *prima facie* obvious the instant claims.

MANFRED T. REETZ ET AL.  
USSN 09/831,566

Support for the "100% water-soluble" limitation can be found throughout the instant specification. The Examiner's attention is especially directed page 5, lines 8-9, and to the instant examples, wherein a large number of these examples expressly state that colloids are obtained which are "completely re-dispersible in water." See, Example 1 (last line of the first paragraph on page 9); Example 2 (last line of the first paragraph on page 10); Example 4 (last line of the first paragraph on page 12); Example 5 (last line of the first paragraph on page 13); Example 6 (last line of the last paragraph on page 13); Example 7 (last line of the first paragraph of that example); Example 9 (last line of the first paragraph on page 16); Example 10 (last line of the first paragraph on page 17); Example 11 (last line of the first paragraph on page 18); and Example 12 (last line of the first paragraph of that example). Clearly, Applicants had possession of colloids satisfying the "100% water-soluble" limitation at the time the instant application was filed. Consequently, the "100% water-soluble" limitation does not introduce new matter. *See, e.g., In re Anderson*, 176 USPQ 331, 336 (CCPA 1973), for the proposition that in determining whether an amendment to a claim constitutes new matter, the question is not whether the added words are words that are used in the application as filed, but whether the concept embodied by the added words is present in the original specification.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the rejections based on Moumen. An early notice that these rejections have been withdrawn is earnestly solicited.

MANFRED T. REETZ ET AL.  
USSN 09/831,566

Claims 38, 39 and 41 were rejected under 35 USC § 102(b) as clearly anticipated by Bonnemann et al. ("Bonnemann"), WO 96/17685.

Claim 44 was rejected under 35 USC § 103(a) as being obvious over Bonnemann in view of Day et al. ("Day"), U.S. Patent No. 4,197,187.

In response to *both* rejections based on Bonnemann, Applicants note that the Examiner emphasizes that "applicants' [previous] argument overlooks the fact that claims 38, 39, 41 and 44 herein call for metal colloids." In response, Applicants call the Examiner's attention to the fact that claims 38 and 39, while being directed to a process for preparing metal colloids, both require in step (a) that *metal oxide colloids* be prepared first as precursors. Further, claims 41 and 44 are amended above to require "preparing colloids by the process according to claim 38," and, therefore, these claims also require the preparation of *metal oxide colloids* as precursors. In short, all four of the rejected claims do, in fact, require the preparation of *metal oxide colloids*, and such materials are not taught or described by Bonnemann alone or in combination with Day.

To reiterate Applicants' previous arguments, Bonnemann's products are *metal* colloids prepared by the reduction of metal salts in the presence of water-soluble stabilizers. They are, thus, clearly different from the water-soluble *metal oxide colloids* required by the rejected claims, and, consequently, there is no anticipation. Further, nothing in Bonnemann alone or in combination with Day teaches or suggests the preparation and use of metal oxide colloids. Accordingly, there is no obviousness either.

MANFRED T. REETZ ET AL.  
USSN 09/831,566

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the rejections based on Bonnemann. An early notice that these rejections have been withdrawn is earnestly solicited.

For the record, Applicants emphasize that although claims 41 and 44 were amended to overcome this rejection, and, therefore, might be considered to have been amended for a reason substantially related to patentability, a fair reading of the amended claims will reveal that the departures from the previous claims were for clarification purposes only, and that Applicants did not narrow the claims in any material respect. Therefore, Applicants submit that the amended claims are entitled to the full range of equivalents.

Applicants believe that the foregoing constitutes a bona fide response to all outstanding objections and rejections.

Applicants also believe that this application is in condition for immediate allowance. However, should any issue(s) of a minor nature remain, the Examiner is respectfully requested to telephone the undersigned at telephone number (212) 808-0700 so that the issue(s) might be promptly resolved.

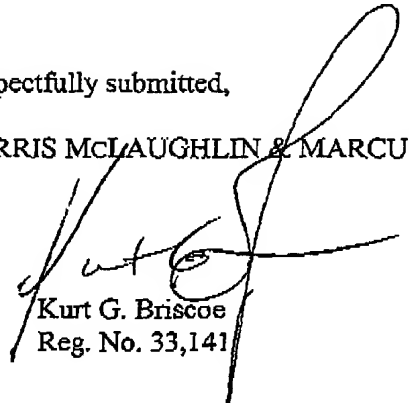
MANFRED T. REETZ ET AL.  
USSN 09/831,566

Early and favorable action is earnestly solicited.

Respectfully submitted,

NORRIS McLAUGHLIN & MARCUS, P.A.

By

  
Kurt G. Briscoe  
Reg. No. 33,141

220 East 42<sup>nd</sup> Street  
30<sup>th</sup> Floor  
New York, New York 10017  
Phone: (212) 808-0700  
Fax: (212) 808-0844

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Amendment under 37 CFR § 1.116 and the attached Mark-Up Showing the Changes Made in the Previous Claim to Yield the Claim as Amended Above (9 pages total) are being facsimile transmitted to the United States Patent and Trademark Office on the date indicated below:

Date: May 27, 2003

By

  
Kurt G. Briscoe

MANFRED T. REETZ ET AL.  
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**MARK-UP SHOWING THE CHANGES MADE IN THE PREVIOUS CLAIM TO YIELD  
THE CLAIM AS AMENDED ABOVE**

--21. (Twice Amended) Additive-stabilized, 100% water-soluble metal oxide colloids having particle sizes ranging from 0.5 - 5 nm, comprising at least one metal of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table, and stabilized by at least one water-soluble additive capable of stabilizing said colloids.--

--41. (Once Amended) A process for fixing colloids ~~prepared onto solid supports, said process comprising preparing colloids~~ by the process according to claim 38, and onto solid supports, said process comprising treating solid oxidic or non-oxidic solid materials with an aqueous solution of the colloids.--

--44. (Once Amended) A process for immobilizing colloids, ~~prepared said process comprising preparing colloids~~ by the process according to claim 38, ~~said process for immobilizing comprising~~ and incorporating said colloids into sol-gel materials.--